Amendments to the Claims:

1. (Currently amended) An intra-osseous implant for placement in bone of a human or animal body comprising at least one intra-osseous part intended for placement in ~~said~~ bone tissue having an apical side and a cervical side and composed of a body friendly material, which part is provided on its circumferential surface with a screw thread running in the direction of and ending at the apical end; and a support part present at said cervical side of said at least one intra-osseous part intended for supporting a prosthetic element, characterized in that the intra-osseous part is provided with multiple grooves extending in longitudinal direction and over the entire length of the intra-osseous part, interrupting the screw thread into multiple interrupted screw thread parts, said multiple interrupted screw thread parts serving as retention elements allowing the placement of the implant in longitudinal direction into said bone but preventing the removal of the implant in opposite longitudinal direction out of said bone, said retention elements being provided with a profile exhibiting a shallow slope towards the apical side and a steep slope on the cervical side.

2. (canceled)

3. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the depth of the groove is smaller, equal or greater than the height of the screw thread.

4. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the width of the groove varies in the direction of the apical side of said intra-osseous part.

5. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the depth of the groove varies in the direction of the apical side of said intra-osseous part and more in particular becomes larger.

6. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the height of the screw thread varies in the direction of the apical side of said intra-osseous part and more in particular becomes smaller.

7. (canceled)

8. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the grooves are present in an equidistant manner in the circumferential surface.

9. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the intra-osseous part has a cylindrical cross section.

10. (Currently amended) An intra-osseous implant according to claim 1, characterized in that the intra-osseous part has a near cylindrical cross section~~, for example a conical, elipsonal, oval cross section~~.

11. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the intra-osseous part has a polygonal cross section.

12. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the intra-osseous part becomes smaller in the apical direction.

13. (Previously presented) An intra-osseous implant according to claim 1, characterized in that the support part is positioned under an angle on said intra-osseous part with respect to the direction of implant.

14. (Currently amended) An intra-osseous implant according to claim 1, characterized in that the implant is a dental implant, wherein said support part is provided with at least one bevel ~~(flattening concavity)~~ on its circumferential edge.

15. (Previously presented) An intra-osseous implant according to claim 4, characterized in that the width of the groove widens in the direction of the apical side of said intra-osseous part.

16. (Previously presented) An intra-osseous implant according to claim 11, characterized in that the intra-osseous part has a hexagonal cross section.

17. (Previously presented) An intra-osseous implant according to claim 11, characterized in that the intra-osseous part has an octagonal cross section.